creased plasma immunoreactive growth hormone levels, whereas pigeon crop sac stimulating activity is increased. The metabolic changes associated with increased growth hormone activity are absent. Women with genetic dwarfism, which appears to be due to an isolated growth hormone deficiency, are able to produce milk and to breast-feed their offspring.

Improved methods for gonadotropin assay have already provided useful information concerning the pituitary release and peripheral metabolism of these glycoproteins. Much more must be done to clarify these processes and to further our understanding of such basic processes as the onset of puberty, the control of ovulation, the role of gonadal and gonadotropic hormones in behavior and the influence of the environment on gonadal function. It is hoped that this information will also promote more effective clinical use of the gonadotropins for such purposes as the stimulation of ovulation.

Mycosis Fungoides

MYCOSIS FUNGOIDES REMAINS an enigma not only for the dermatologist, who sees most of the patients, but for the hematologist, pathologist and radiologist who observe these patients in one aspect or another of this disease. A firm diagnosis in the early stages of the disease often is elusive, as with all lymphomas. The course and evolution of so-called "premycotic eruptions," such as parapsoriasis en plaque and poikiloderma atrophicans vasculare, into the malignant tumorous stage cannot be predicted. The cause of mycosis fungoides is completely unknown. If it represents a variety of lymphoma, as many contend, it would have to be classified as Stage IV disseminated type, with a poor prognosis even in the early stages,[1] but this certainly is not true clinically, for many patients survive for years with well-advanced cutaneous disease. On the other hand, many Europeans believe but without much conviction that mycosis fungoides is a variety of malignant reticulosis.

Local x-irradiation has been used in traditional treatment for the tumorous stage. The lesions are usually radiosensitive and may respond to very low doses (100 to 200 r). In recent years, electron beam has been used for widespread and far-advanced disease.[2] Due to the low penetration of electrons from the beam this method provides whole body surface irradiation without systemic toxicity. Fortunately, these large and expensive instruments are strategically placed throughout the United States so that nearly all patients requiring such treatment can obtain it when necessary.

Chemosurgery, as used for other malignant diseases, is becoming more widespread. The various agents and combinations are outlined in an excellent summary of the therapy of mycosis fungoides by Haynes and Van Scott.[3] They recommend a therapeutic program of gradually escalating intensity which is adjusted to fit the individual patient. Topical nitrogen mustard (HN_2) is considered the "single-most valuable therapy" for the early stages of the disease. Elsewhere in this issue of CALIFORNIA MEDICINE, Arundell and Chan strongly support this view and indicate that dilute solutions of topical nitrogen mustard can also be used to control recurrences of mycosis fungoides following electron beam therapy. In the present account, no instances of contact sensitization to nitrogen mustard were encountered, but most dermatologists who use this therapy have encountered acute allergic contact sensitivity in patients treated with repeated applications.[4]

Topical corticosteroids with occlusion also may cause regression of early lesions and usually decreases erythema and pruritus. As the disease advances the therapeutic program escalates to include local x-irradiation, electron beam and finally systemic chemotherapy in various combinations. Often systemic corticosteroids are recommended.[3] Clearly, no major breakthrough has been achieved in treating mycosis fungoides, but a number of therapeutic means are now available that alone or in combination reduce the morbidity of the disease and may improve the prognosis.

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